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Light Metaphors. - PUBLISHED

We are about to penetrate the Age of Electromagnetics. Catchwords like microelectronics, artificial intelligences, robots, computer images and holograms are some of the sign posts on this path of ours away from material to "immaterial" culture. Instead of manipulating inert, perfidious matter, we shall concentrate on processing rays and those curious particles rays consist on. Electromagnetics has to do with the oscillations of those particles, and light is one such oscillation. This may be put the other way round: electromagnetics has to do with light, although some of it is invisible. Thus the Age we are about to penetrate may be said to be the Age of Light. Such a statement rings metaphorically: we are about to leave the Age of Darkness. But before we congratulate ourselves on this, it is wise to consider what is implied in this metaphor. This paper will be about some of those implications.

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Most of us are committed most of the time to Light and against Darkness. This Manichaeistic commitment of ours expresses itself through numerous metaphors: The Buddha is the Enlightened One, rays irradiate from Moses' forehead, and the Saints are surrounded by halos. However, this sort of light which is meant by the metaphors mentioned is not the one which appears in Modern metaphors, and it is Modern Age which we are leaving. The light of pre-Modern metaphors irradiates as if coming from the background, it illuminates as if from behind, it is "transcendent". Modern man did not trust it. It makes the world appear against a shining background, (like in Byzantine painting), and appearances deceive. Modern man was committed to a light which beams in the opposite direction. To one that man himself projects against the world. Such a light, which does not make the world appear, but which renders it transparent, is expressed in metaphors like clarification, reflection, enlightenment, and it is possible to reduce all those metaphors to a single one: the Light of Reason.

Consider the Light of Reason. The world must be opaque, for this sort of light to have any purpose. If the world were indeed illuminated from behind, such a radiation would swallow up the rays of the Light of Reason. Any such background light must be shielded off, before the Light of Reason can begin to clarify and to enlighten. This shielding-off looks very much like obscurantism from the point of view of pre-Modern light metaphors. Once the transcendent light is prevented from shining, darkness will hover at the background of the world. And we shall be able to carry the Light of Reason into that darkness. As we do so, as we explore the darkness, we shall discover what hides there. Namely the wires which connect the appearances with each other. We shall discover the true structures. And having discovered it, we shall be in a position to pull those wires. The Light of Reason is a search for Truth as a means for attaining Power. Thus the Modern light metaphors are Luciferian: they have man carry the light in order to obtain power.

This identification of Modern Age with Lucifer, (or, to be kinder to it: with Prometheus), was impossible to make as long as that Age of Reason was in

full progress. Because the results of the Light of Reason, namely science and technology, seemed to point, not in the direction of Hell but of Heaven. But now that those results are beginning to show where they lead us to, (to Auschwitz, to thermo-nuclear weapons, to the destruction of our surroundings), now that the vultures begin to devour our livers, we are in a position to appreciate the Luciferian flavor in the Modern light metaphors. When we compare a Byzantine icon to an early Renaissance painting, we begin to see what was involved in this refusal of background light, and in this commitment toward a search light.

There is however a disturbing element in this identification of Enlightenment with hell fire. It seems to advocate a nostalgic return to pre-Modern situations. Now this is of course out of the question. Nobody, not even the most radical "alternative", will seriously consider Medieval life as an alternative to ours. And it seems to despise reason. This would be of course disgusting. Not reason itself, but deified Reason, (as in the Light of Reason metaphor), is responsible for the guillotines and for what followed. This disturbing element in our identification of the Light of Reason metaphor with the Fire of Hell may be avoided, however. The metaphor itself provides a way to do so.

The Light of Reason is a torch which we carry when exploring the darkness in the background. But that torch is provided with a mirror which reflects the rays, throws them back into the beam of reason. The metaphor of the Light of Reason implies the metaphor of the mirror, of speculation. The attempt to clarify itself is a motion proper to reason. Not only science and technology, but critique of science and technology, (of pure and practical reason), is the result of the metaphor of the Light of Reason. Thus, as reason advances into the darkness which hovers in the background of the world, it also penetrates and renders ever more transparent its own background. The identification of Enlightenment with the fires of hell becomes much less disturbing, if we do not take it to be an argument in favor of a nostalgic return to medieval situations, or an argument against reason and rationality, but if we take it to be the result of the critical analysis of reason by reason, as it was undertaken ever since Hume, through Kant, through Freud, and after

But if we do so, the metaphor of the Light of Reason acquires a curious structure. It will show, on the one hand, the world of appearances, with darkness in its background. And on the other hand it will show the Light of Reason with infernal darkneses in its own background. And as that Light advances into the darkness behind the world, as it discovers what is hidden there, and as it begins to pull the wires, it also discovers the hell which it hides within itself, the devillish powers that pull it and have it advance ever farther. It is very difficult to commit oneself to such a metaphor, after Freud and after Auschwitz. Indeed, as the torch advances into the darkneses beyond, it burns its bearer to ashes. And those ashes are not necessarily metaphorical ones only.



At any rate, electromagnetics disposes of the Modern light metaphors, be they the Light of Reason, clarification, speculation, enlightenment or whatever. The discovery that the opaque objects, (what used to be called "matter") are composed of oscillating particles, that they are knots within the electromagnetic field, may be held, it is true, to be a triumph of the Light of Reason. It may be said that Reason has rendered matter transparent, that it has clarified matter. Although one might be bothered by the fact that this clarification of matter has led to the discovery of a background light which is not quite unlike the one to be seen in Byzantine paintings, only brighter, (like in atomic mushrooms). But this is not why electromagnetics does away with the Modern light metaphors: that it somehow re-establishes pre-Modern metaphors. The reason why the Modern metaphors have become obsolete is the discovery that reason itself is an electromagnetic phenomenon, and not a light of its own. The beam of reason which illuminates the opaque world is shown to emerge from the same Ocean of Light from which the objective world emerges. And therefore new light metaphors are now in order.

Neurophysiology suggests that what we call "mental processes", like perception, imagination, sensation, desire and reason, are in fact complex chemical and electromagnetic processes which go on in the brain, and which may be reduced to quantic jumps of electrons over the gaps between nerve synapses. And this is no mere suggestion: those jumps may be simulated in inert matter, and they will then result in what is known as artificial intelligences. Those machines can calculate, perform logical operations, make decisions, and order other machines to manipulate objects according to those decisions. In other words: those machines possess some of the most abstract aspects of reason, those which have to do with freedom. Thus those machines show, in their rather simpleminded way, that what we call "reason", and what Modern Age deifies as the "Light of Reason", is a series of quantic jumps, an electromagnetic phenomenon, or, to say it metaphorically, that reason is one of the ways in which the background light is knotted.

Now such a reformulation of the light metaphor must have consequences some of which we are yet incapable of foreseeing. One such consequence is that reason must be conceived of as a form of energy, just as matter is to be conceived as an energy form. And this will do away with the traditional "ontological" distinction between matter and spirit. If both of them are energy forms, how can matter be the object of spirit, and spirit the subject of matter? And, a fortiori, how can the Light of Reason be a beam that illuminates objects as if from outside? Another such consequence is that we shall have to face a quite different and more painful distinction, the one concerning the difference, (if any), between natural, (human), and artificial intelligences. The ultimate consequence of this new light metaphor will very probably be the abandon of the Modern idea that man is a reasonable subject of an objective world. Instead, one will probably have to admit that there is a universal Ocean of Light, [the electromagnetic

field), that this Ocean consists of particles which oscillate in a way which reason cannot fully clarify, and that it cannot do so because it is itself one of such oscillations. And it is this new, (and not very optimistic), metaphor which characterizes the passage from the Age of Darkness to the Age of Light mentioned in the first paragraph of this paper.

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Although reason cannot fully clarify the way in which the particles oscillate, as the Heisenberg factor shows, it can nonetheless operate with this radiation. Ever since the invention of photography light has become something we can reasonably handle. This shows in practice that we no longer consider light to be something we ourselves project upon the world, but something which comes out from the world. But it comes out from the world quite unlike the pre-Modern background light of transcendence. Not to be adored, but to be processed, and it does not give a meaning to everything, but it is a meaningless, absurd whirl. We can process this background radiation to become meaningful, and we can do so by using at least two different methods. On the one hand, as in photography, (and in video, and in computer images, and in holograms), we can process the rays so that they may become symbols. And on the other hand, as in artificial intelligences, we can simulate our reason in those rays, so that they may think in our place, and change the material world in our place. Those two methods are merging: artificial intelligences can produce photographs, holograms, meaningful symbols.

Thus the Age we are about to penetrate will be one where radiation is both subject and object, and where everything so far produced by reason on matter will be produced more efficiently by radiation on radiation. Should we therefore expect the New Age to be a Radiant one, (to use one more light metaphor)?